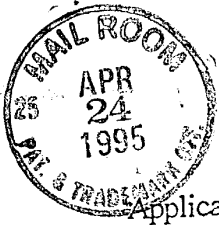


PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James H. Alleman

Examiner: A. Matar

Serial # : not available yet

Group Art Unit: 2601

Parent Serial # : 07/873,323

Filed : June 2, 1994

Docket: 162.2-US-01

Title : Interactive Telephone System for Optimizing Service Economy

PRELIMINARY AMENDMENT

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

In response to the Final Office Action mailed January 14, 1994 in the parent patent application to this application, to which the attached File Wrapper Continuation Application has been filed, and preliminary to examination, please amend the above-identified patent application as follows.

In the Drawings

Figure 3 has been changed according to the red-line drawing previously mailed on March 28, 1994.

In the Claims

Please delete claims 2-17.

Please add new claims 18-27 as follows:

PRELIMINARY AMENDMENT

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Patent Application for:
Interactive Telephone System for Optimizing Service Economy
Parent Application Serial No: 07/873,323
Filed: June 2, 1994

18. [New] A system for establishing a telephone communication link between a subscriber telephone station and a destination telephone station, comprising:
- control means including a caller response unit;
 - storage means connected to the control means and operable for storing a local direct inward dial telephone number associated with a subscriber and for storing a subscriber remote telephone number associated with the subscriber telephone station;
 - first telephone connection means connected to the control means and operable for connecting to a telephone exchange and for receiving an incoming direct inward dial telephone number from the telephone exchange as part of an incoming call attempt;
 - second telephone connection means connected to the control means and operable for dialing out through the telephone exchange;
 - the control means further operable for comparing the incoming direct inward dial telephone number to the local direct inward dial telephone number and, if the incoming direct inward dial telephone number matches the local direct inward dial telephone number associated with the subscriber, the control means is further operable for:
 - calling the subscriber remote telephone number through the first telephone connection means;
 - receiving from the subscriber a calling telephone number for the destination station;
 - calling the calling telephone number through the second telephone connection means; and for
 - bridging the first telephone connection means to the second telephone connection means so that the subscriber is connected to the destination.
19. [New] The system according to claim 18 wherein the control means is further operable for indicating an invalid call attempt if the incoming call attempt does not terminate within the predetermined period of time.

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20. [New] The system according to claim 19 wherein the control means is further operable for answering the incoming call attempt in response to the invalid call attempt and for presenting an audio message onto the first telephone connection means in response to the invalid call attempt.
21. [New] The system according to claim 18 wherein the control means is further operable for indicating an invalid call attempt if the incoming direct inward dial telephone number does not match the local direct inward dial telephone number associated with the subscriber.
22. [New] The system according to claim 21 wherein the control means is further operable for answering the incoming call attempt and for presenting an audio message onto the first telephone connection means in response to the invalid call attempt.
23. [New] A method establishing a telephone communication link between a subscriber telephone station and a destination telephone station, comprising the steps of:
- storing a local direct inward dial telephone number associated with a subscriber;
 - storing a subscriber remote telephone number associated with the subscriber telephone station;
 - receiving an incoming direct inward dial telephone number from a first telephone exchange connection as part of an incoming call attempt;
 - comparing the incoming direct inward dial telephone number to the local direct inward dial telephone number and if the incoming direct inward dial telephone number matches the local direct inward dial telephone number associated with the subscriber, performing the following steps:

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Patent Application for:
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Filed: June 2, 1994

calling the subscriber remote telephone number;
receiving from the subscriber a calling telephone number for the destination station;
calling the calling telephone number through a second telephone exchange connection; and
bridging the first telephone exchange connection to the second telephone exchange connection so that the subscriber is connected to the destination.

24. [New] The method according to claim 23 further comprising the steps of comparing the incoming direct inward dial telephone number to the local direct inward dial telephone number and if the incoming direct inward dial telephone number does not match the local direct inward dial telephone number associated with the subscriber, terminating the incoming call attempt.

25. [New] The method according to claim 23 further comprising the steps of comparing the incoming direct inward dial telephone number to the local direct inward dial telephone number and if the incoming direct inward dial telephone number does not match the local direct inward dial telephone number associated with the subscriber, answering the incoming call attempt and playing a prerecorded message.

26. [New] The method according to claim 23 further comprising the steps of timing the incoming call attempt and indicating an invalid call attempt if the incoming call attempt does not terminate within a predetermined period of time.

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Patent Application for:
Interactive Telephone System for Optimizing Service Economy
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Filed: June 2, 1994

27. [New] The method according to claim 26 further comprising the steps of answering the incoming call attempt and playing a prerecorded message in response to the invalid call attempt.

Remarks

In response to the Final Office Action mailed January 14, 1994 in the parent case for the present patent application, and in response to the Advisory Action mailed March 17, 1994, the above-identified patent application has been amended. Reconsideration of the rejections in the parent case and allowance of the new claims presented is respectfully solicited.

Change of Power of Attorney

Applicant calls the Examiner's attention to the Acceptance of Power of Attorney for the present patent application mailed April 7, 1994. Applicant also calls the Examiner's attention to the Change of Address request filed with the present Preliminary Amendment.

New Claims Amended claims 18 - 27

New claims 18-27 are submitted to take the place of original claims 1-17. At this time, only claims 2-17 have been deleted and claim 1 will be deleted after admission of these new claims to ensure continuity of the case.

The claims have been specifically rewritten to remove the rejections under 35 U.S.C. Section 112 and 35 U.S.C. Section 103. Support for these claims are found throughout the specification.

In particular, new claim 18 replaces original claim 1. This claim is written in a more readable fashion and explicitly sets forth the fact that direct inward dial numbers are

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used to compare an incoming call from a subscriber to the subscriber list stored within the system.

Claim 19 describes a further limitation of the system in which a user does not terminate the call within a predetermined time. This corresponds to page 17 of the specification where it describes that an invalid call attempt is one in which a caller does not hang up within a predetermined period of time. This is usually the case when a wrong number is dialed into the present system, or a user is improperly using the system. Other invalid call attempts are described in claims 20-22.

Claim 23 is a new method claim corresponding to deleted claim 14. This method claim explicitly describes the steps of operation of the present invention including the use of direct inward dial numbers which is nowhere shown in the prior art.

Claims 24-27 also describe invalid call attempts.

Interview Summary

Applicant thanks Examiner Matar for the courtesy of the telephone interview on May 16, 1994. Applicant contacted Examiner Matar to discuss the status of the claims after reviewing the Advisory Action mailed March 17, 1994. The Examiner and Applicant's attorney discussed the rejection of original claims 1, 4 and 5 under 35 U.S.C. §103 and the rejection of original claims 2 and 3 under 35 U.S.C. §112. The Examiner reiterated his position that the amendment After Final would not be admitted in its present form since the scope of independent claim 1 has changed. No agreement on the claims was made.

Drawings Objection

The Examiner objected to Figure 3 because it did not show under what condition the process would proceed from 48 to 49. A proposed drawing change was previously mailed on March 28, 1994. Acceptance of this drawing change is respectfully

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requested. Upon notice that the drawing changes are approved, new formal drawings will be submitted to the Official Draftsman.

Rejections Under 35 U.S.C. § 112, Second Paragraph

In the Final Office Action of the parent application, original claims 2-3 were rejected under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The new claims have been carefully reviewed to ensure they comply with 35 U.S.C. § 112. Reconsideration of the rejection and allowance of new claims 18-27 is respectfully requested.

Rejection Under 35 U.S.C. § 103

In the Final Office Action of the parent application, the Examiner rejected original claims 1-14 and 16-17 under 35 USC §103 as being unpatentable over Kahn et al. (US Patent No. 4,086,438). The Examiner has not explicitly cited a second reference to support this rejection. Under MPEP 706.02(a), applicants respectfully request the Examiner cite a second reference in support of his position.

The present invention is nothing like the Kahn et al. patent. The Kahn et al. patent describes an automatic interconnection system for answering incoming calls and connecting the incoming call to an outgoing line for making an outgoing call. The calling party has to call into the system where the system answers. The calling party then provides a security code which is compared with stored codes. If a valid security code is entered by the calling party, the system will provide the calling party with a dial tone so the calling party can make an outgoing call.

In contrast to this, the present invention as described in new apparatus claims 18-22 and new method claims 23-27 describe a system which operates without the subscriber being charged for a long distance call. This is accomplished according to the claimed

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invention by having this system receive the direct inward dial number called by the subscriber and calling back the subscriber without the need to have the subscriber connect to the system. This is a superior system to the Kahn et al. patent since the subscriber will not incur any long distance charges for connection. If the assigned direct inward dial number of the subscriber matches that of the list, the system calls the subscriber's telephone station which is preassigned. Thus, the system is further superior to the Kahn et al. patent since it prevents fraud and use by non-subscribers by only calling a subscriber's telephone station. Thus, theft of a subscriber's access code or security code as described in the Kahn et al. patent is impossible with the present invention.

The new claims as submitted contain elements which are not found in the Kahn et al. reference. Thus, the rejection of the claims based on the Kahn et al. reference would not be proper. Applicant respectfully requests, therefore, that these new claims be examined, that the rejections of this case be removed, and the claims be allowed to issue.

Request for Interview Prior to First Office Action

Applicant respectfully requests a telephone interview with the Examiner prior to the first office action pursuant to MPEP Section 706.07(b) which states that "a request for an interview prior to first action on a continuing or substitute application shall ordinarily be granted." Applicant believes an interview prior to the first action would be beneficial in furthering the action on this case.

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Interactive Telephone System for Optimizing Service Economy
Parent Application Serial No: 07/873,323
Filed: June 2, 1994

Conclusion

Applicant respectfully requests that removal of all rejections of the pending claims and allowance of all claims be granted.

Respectfully submitted,

James Harry Alleman

By his attorney,

SCHWEGMAN, LUNDBERG
& WOESSNER, P.A.

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By Daniel J. Kluth
Reg. No. 32,416

Date June 2, 1994

By Daniel J. Kluth
Daniel J. Kluth
Reg. No. 32,416

"Express Mail" mailing label no. TB571,042 940

Date of Deposit: June 2, 1994
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Washington, D.C. 20231

DANIEL J. KLUTH
Printed Name
Daniel J. Kluth
Signature

S/N 08/252,984

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: James H. Alleman

Filed: June 2, 1994

Serial No.: 08/252,984

Group Art Unit: 2601

Docket: SLW 162.002US1

Examiner: A. Matar

Title: INTERACTIVE TELEPHONE SYSTEM FOR OPTIMIZING SERVICE ECONOMY

AMENDMENT AND RESPONSE

Hon. Commissioner of
Patents & Trademarks
Washington, D.C. 20231

Dear Sir:

In response to the Office Action mailed August 10, 1994, please admit the following remarks in response to the rejections without amendment to the claims.

In the Claims

Please amend claims 18, 19, 21, 23-25 as follows:

18. [Once Amended] A system for establishing a telephone communication link between a subscriber telephone station and a destination telephone station, both being connected through a telephone exchange, comprising:

control means operable for managing a database of caller information [including a caller response unit];

storage means connected to the control means and operable for storing the database of caller information including a preassigned [a local] direct inward dial telephone number

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associated with a subscriber and [for storing] a subscriber [remote] telephone number associated with the subscriber telephone station;

first telephone connection means connected to the control means and operable for connecting [to a] through a trunk line to the telephone exchange and for receiving an incoming direct inward dial telephone number on the trunk line from the telephone exchange as part of an incoming call attempt from the subscriber telephone station, the incoming direct inward dial telephone number indicating the number called by the subscriber;

second telephone connection means connected to the control means and operable for dialing out through the telephone exchange;

the control means further operable for comparing the incoming direct inward dial telephone number to the preassigned [local] direct inward dial telephone number and, if the incoming direct inward dial telephone number matches the preassigned [local] direct inward dial telephone number associated with the subscriber, the control means is further operable for:

calling the subscriber remote telephone number through the first telephone connection means after the subscriber terminates the incoming call attempt and connecting to the subscriber telephone station;

receiving from the subscriber a calling telephone number for the destination station;

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calling the calling telephone number through the second telephone connection means; and for

bridging the first telephone connection means to the second telephone connection means so that the subscriber is connected to the destination.

19. [Once Amended] The system according to claim 18 wherein the control means is further operable for indicating an invalid call attempt if the incoming call attempt does not terminate within a [the] predetermined period of time.

21. [Once Amended] The system according to claim 18 wherein the control means is further operable for indicating an invalid call attempt if the incoming direct inward dial telephone number does not match the preassigned [local] direct inward dial telephone number associated with the subscriber.

23. [Once Amended] A method establishing a telephone communication link between a subscriber telephone station and a destination telephone station, both being connected through a telephone exchange, comprising the steps of:

storing a preassigned [local] direct inward dial telephone number associated with a subscriber;

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storing a subscriber remote telephone number associated with the subscriber telephone station;

receiving an incoming direct inward dial telephone number from a first telephone exchange connection as part of an incoming call attempt from the subscriber telephone station;

comparing the incoming direct inward dial telephone number to the preassigned [local] direct inward dial telephone number and if the incoming direct inward dial telephone number matches the preassigned [local] direct inward dial telephone number associated with the subscriber, performing the following steps:

calling the subscriber remote telephone number after the subscriber terminates the call attempt and connecting to the subscriber telephone station;

receiving from the subscriber a calling telephone number for the destination station;

calling the calling telephone number through a second telephone exchange connection; and

bridging the first telephone exchange connection to the second telephone exchange connection so that the subscriber is connected to the destination.

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24. [Once Amended] The method according to claim 23 further comprising the steps of comparing the incoming direct inward dial telephone number to the preassigned [local] direct inward dial telephone number and if the incoming direct inward dial telephone number does not match the preassigned [local] direct inward dial telephone number associated with the subscriber, terminating the incoming call attempt.

25. [Once Amended] The method according to claim 23 further comprising the steps of comparing the incoming direct inward dial telephone number to the preassigned [local] direct inward dial telephone number and if the incoming direct inward dial telephone number does not match the preassigned [local] direct inward dial telephone number associated with the subscriber, answering the incoming call attempt and playing a prerecorded message.

REMARKS

In response to the Office Action mailed August 10, 1994, claims 18, 19, 21, 23-25 have been amended. Applicant offers the following remarks in support of the amendments and in response to the Examiner's remarks.

Examiner Interview Summary

Applicant had requested a Telephone Interview preliminary to the issuance first office action to discuss the case with the Examiner. The intent of an Interview Preliminary to

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the first office action was to clear up any minor problems in the case in an efficient manner and to accelerate ex parte prosecution.

Applicant thanks Examiner Matar for the courtesy of calling the undersigned attorney and granting the telephone interview on August 3, 1994. Examiner Matar called Applicant's attorney before reviewing the new claims and stated there was nothing new to discuss and therefore a telephone interview was unnecessary. Applicant's attorney requested that Examiner Matar call him after reviewing the new claims if there were any issues that could be resolved by telephone before issuance of the first office action.

Rejection of the Claims Under 35 U.S.C. § 112

Claims 18 through 27 were rejected by the Examiner under 35 U.S.C. § 112 second paragraph, for being indefinite. The Examiner raised questions about the order of operation of some of the functions of the apparatus claims and the steps of the method claims. Applicant has added clarifying language throughout the claims to clarify the operation of the claims invention. Applicant respectfully requests reconsideration of the rejected claims, removal of the rejections and allowance of all claims.

Removal of the Business Week Article from Consideration

Claims 1 and 18-27 were rejected under 35 USC §103 as being unpatentable over the IDT machine disclosed in *Business Week* articles and a portion of the applicants own

specification. Applicant respectfully submits the attached Declaration of James H. Alleman, inventor of the present invention to which this patent application applies, swearing behind the Business Week articles.

Since the *Business Week* Articles are not prior art to the present claimed invention, the rejection of claims 1 and 18-27 under 35 U.S.C. § 103 fails. Applicant respectfully requests reconsideration of the rejected claims, removal of the rejections and allowance of all claims.

REJECTION OF THE CLAIMS UNDER 35 USC §103

Claims 1 and 18-27 were rejected under 35 USC §103 as being unpatentable over Kahn et al. (US Patent No. 4,086,438) in view of Billinger et al. (US Patent No. 4,769,834) and in further view of Srinivasan (US Patent No. 5,185,782).

Applicant respectfully points out that the present invention is quite different from the Kahn et al. patent. The present invention as claimed does not use stored security codes. Identification of the user is based upon which DID number was dialed and which DID number is sent along the trunk line. Also, the present invention does not answer the call but expects the subscriber to hang up (call attempt) so no connection charges are incurred.

On page 6, first full paragraph, of the Office action, the Examiner described the differences between the present invention and the Kahn et al. patent. The Examiner stated that "the claimed invention utilizes information provided by the exchange to identify the

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originating station (such as DID and ANI)." After this characterization the Examiner combines the Billinger et al. patent and the Srinivasan patents with the Kahn et al patent to show the invention to be obvious. Applicant respectfully points out that this characterization of the present invention is incorrect and hence the combination of references is incorrect.

The present invention receives a direct inward dial (DID) number from the telephone exchange on a trunk line. The DID number identifies the number which was dialed by the subscriber. The present invention uses the control means (a processor) to look up the DID number in a database to determine who is making the call attempt. The subscriber can call the claimed invention from any telephone, but the system will only call back to the subscribers telephone number from the database. Thus, although the claimed invention utilizes the DID number, it does not identify the originating station. It uses the DID numbers to determine the subscriber.

Applicant also respectfully points out that the DID and ANI systems are not equivalent and interchangeable. Contrary to the Examiner's assertion on page 7 of the office action, applicant's claims in this patent application are limited to DID numbers. Applicant is not claiming ANI systems and the claims do not cover the use of ANI. Applicant respectfully reserves the right to claim the use of ANI at a later time. ANI numbers do identify the caller, but DID numbers only identify the telephone number of the called number on a trunk line.

AMENDMENT AND RESPONSE

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Serial No: 08/252,984
Filed: June 2, 1994

CONCLUSION

Applicant respectfully requests that removal of all rejections of the pending claims and allowance of all claims be granted.

Respectfully submitted,

James Harry Alleman

By his attorney,

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Date Nov. 10, 1994

By

Daniel J. Kluth
Daniel J. Kluth
Reg. No. 32,146

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on November 10, 1994.

Nov. 10, 1994
Date

Daniel J. Kluth
Daniel J. Kluth

S/N 07/873,323

PATENTIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James H. Alleman

Examiner: A. Matar

Serial # : 07/873,323

Group Art Unit: 2601

Filed : April 24, 1992

Docket: 162.2-US-01

Title : Interactive Telephone System for Optimizing Service Economy

AMENDMENT AND RESPONSE AFTER FINAL

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

In response to the Final Office Action mailed January 14, 1994, please amend the above-identified patent application as follows. THIS AMENDMENT IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THE FINAL OFFICE ACTION.

In the Drawings

Figure 3 has been changed according to the red-line drawing attached to this Amendment & Response..

In the Claims

Please delete claims 5 and 13.

Please amend claims 1-4, 6-10 and 14 as follows:

AMENDMENT AND RESPONSE

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Patent Application for:

Interactive Telephone System for Optimizing Service Economy

Serial No: 07/873,323

Filed: April 24, 1992

1. [Twice Amended] A system at a central location for interactively establishing telephone communication links between an originating station of a subscriber [calling party] and a destination station [called party] called by said subscriber [calling party] using input and output connections to a telephone exchange [interconnecting the originating station of the calling party with the system at the central location wherein a signal containing unique identifying data uniquely identifying the originating station of the calling party is placed on the input connection whenever the calling party places a call to said input connection from said originating station], the system comprising:

storage means for storing stored data which contains an authorization list including a copy of a [the] unique identifying assigned direct inward dial number assigned to the subscriber [data of the calling party],

comparison means responsive to a received direct inward dial number received from the telephone exchange for [the signal containing the unique identifying data on said input connection in the form of input data] indicating a connection [an] attempt to establish communications from the originating station of the subscriber [calling party] through the telephone exchange and for comparing the received direct inward dialed number [input data of the signal] associated with the connection attempt with the assigned direct inward dial number [contents] of said means for storing,

origination means operable in response to a favorable comparison between said received direct inward dial number [input data] and said assigned direct inward dial number, [stored data] for originating a telephone call from said central station to said originating station of the subscriber [calling party],

connection means responsive to a dialed telephone number corresponding to the destination station [second signals] received from said originating station of the subscriber [calling party] for establishing a communication connection from said central station to [with] the destination station [called party] identified by said dialed telephone number [second signals], and

Patent Application for:

Interactive Telephone System for Optimizing Service Economy

Serial No: 07/873,323

Filed: April 24, 1992

bridging means for bridging a communication connection between said originating [calling party] station and the destination station [called party].

2. [Twice Amended] A system in accordance with claim 1 which includes connection attempt terminating means connected to said comparison means and said connection means, and operable for sensing when a caller [the calling party] does not hang up after a predetermined period of time from commencement of said connection attempt [to establish communications from said originating station of the calling party], said connection attempt terminating means further operable for terminating said connection attempt by not originating a call to said originating station of the calling party in response thereto.
3. [Twice Amended] A system in accordance with claim 2 wherein said connection attempt terminating means further includes means for temporarily establishing a communication connection with said caller [originating station of the calling party] for presenting an audio message thereto, and means for disconnecting from said originating station of the calling party after completion of said audio message.
4. [Twice Amended] A system in accordance with claim 1 wherein said origination means [operable in response to a favorable comparison] includes means for answering the connection attempt and for returning an audible signal to the subscriber [calling party] indicative of said favorable comparison, whereby the subscriber [calling party] terminates the call attempt thereby [for] allowing said origination means [for originating a call] to originate a call to said originating station of the subscriber [calling party].
6. [Twice Amended] A system in accordance with claim 1 which includes means connected to said origination means [for originating a call] and to said connection means [for

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establishing a communication connection] for recording information on calls and for enabling a determination of the extent of use of said system by said subscriber [calling party].

7. [Twice Amended] A system in accordance with claim 1 which includes means responsive to a failure to establish communication connection with the destination station, [of the called party to answer the call attempt] for providing an indication to the subscriber [calling party] that they can select between terminating connection attempts and attempting to establish a connection with another destination station [called party].

8. [Twice Amended] A system in accordance with claim 1 which includes means operable after establishing a communication connection with the destination [calling party] station for responding to a special signal originated from the originating station of the subscriber [calling party] so as to terminate further communications and communication attempts with said originating station of the subscriber [calling party].

9. [Twice Amended] A system in accordance with claim 8 wherein said [special signal responding] means for responding includes means for recognizing a dual tone multi-frequency signal from said originating station of the subscriber [calling party station].

10. [Twice Amended] A method for interactively controlling communication links between a subscriber [calling party] and a destination [called party] called by said subscriber [calling party] through a telephone exchange [wherein a signal containing unique identifying data uniquely identifying an originating station of the calling party is transmitted by said exchange whenever said originating station places a call into said exchange] comprising the steps of:

establishing telephone line input and output connections from a central location to said telephone exchange,

AMENDMENT AND RESPONSE

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storing the assigned direct inward dial number assigned to a subscriber [unique identifying data of the calling party] at said central location in the form of stored data,

acquiring a connection attempt from the subscriber [originating station of the calling party] on one of said telephone line input connections,

receiving the received direct inward dial number from the connection attempt [unique identifying data within an identifying signal in the form of input data],

comparing the received direct inward dial number from the connection attempt [unique identifying data of the identifying signal associated with the connection attempt] with the assigned direct inward dial number in the form of [the] said stored data,

responding to a favorable comparison between said [input data and said stored data] received direct inward dial number and said assigned direct inward dial number and originating a call to said subscriber [calling party station] in response to said favorable comparison,

receiving the telephone number of the destination from the subscriber [signals from said originating station of the calling party] which identify a called party, [for]

establishing a communication connection with the called party identified by said telephone number [received signals], and

bridging a communication connection between said subscriber [originating station of the calling party] and said called party.

14. [Twice Amended] A method providing telephone service for use by an originator to call a called party, comprising the steps of:

providing a service center at which a call-back telephone number is provided for each originator and at which a direct inward dial number is assigned for use for all calls that are placed by that originator,

using the direct inward dial [assigned] number to call the service center whereupon the originator is identified by the service center,

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Interactive Telephone System for Optimizing Service Economy

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Filed: April 24, 1992

sending a signal from the service center to the originator thus indicating that the originator is identified whereupon the originator is instructed to terminate the call,

sensing originator call [attempt] termination at the service center and responding thereto by seizing a first outbound circuit over which the service center outputs the call-back telephone number for the identified originator thereby reconnecting the service center to the originator,

prompting the originator to input the telephone number of the called party the originator intends to call,

seizing a second outbound circuit at the service center whereupon the called party number is outputted to the second outbound circuit, and

bridging the originator to the second outbound circuit thus connecting the originator with the called party.

Remarks

In response to the Final Office Action mailed January 14, 1994, the above-identified patent application has been amended. Reconsideration of the rejections and allowance of these claims is respectfully solicited.

Amended claims 1 and 10

Independent apparatus claim 1 has been amended to include the limitations of claim 5 and claim 5 is withdrawn. Claim 5 included the limitation wherein the unique identifying data is the direct inward dial number produced by the exchange.

Claim 10 has been amended to include the claims step limitation of receiving the direct inward dial number assigned to the number called as described in dependant method claim 13. Claim 13 is withdrawn.

The claims also include minor changes in wording to clarify the meaning of terms such as the substitution of the word "subscriber" for the "calling party".

Patent Application for:

Interactive Telephone System for Optimizing Service Economy

Serial No: 07/873,323

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The claims have been specifically narrowed based on claim limitations already of record in this case. No new matter is introduced thereby and no new issues are presented for examination. Reconsideration of the rejections and allowance of the claims is respectfully solicited.

Interview Summaries

Applicant contacted Examiner Matar on February 21, 1994, to request a telephone interview to be scheduled for Thursday, February 24, 1994. Applicant prepared a proposed amendment to claims 1 and 10 for consideration by Examiner Matar and faxed the claims to the Examiner on Wednesday February 23, 1994. Applicant conducted a telephonic Examiner interview on Thursday, February 24, 1994. Claims 1 and 10 were discussed. Applicants discussed how prior art related to ANI/CNI technology affects the patentable status of these claims and of dependent claim 5. No resolution was reached.

Applicant once again contacted Examiner Matar by telephone on Monday, February 28, 1994, to discuss the possibility of filing the present amendment after final rejection. The Examiner indicated that he would consider the amendment.

Drawings Objection

The Examiner objected to Figure 3 because it did not show under what condition the process would proceed from 48 to 49. A proposed drawing change is attached. Acceptance of this drawing change is respectfully requested. Upon notice that the drawing changes are approved, new formal drawings will be submitted to the Official Draftsman.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 2-3 were rejected under 35 USC Section 112 2nd paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The Examiner reiterated that claims two and three were

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not understood by him. The Examiner stated "In claim 2, why would the connection attempt be terminated after a predetermined period of time?"

By way of explanation, claim 2 is drawn to the system described in detail in the specification of the preferred embodiment of the present invention. In that embodiment, a subscriber calls the central station, lets the central station ring for a predetermined number of times and then hangs up. If the subscriber does not hang up after a predetermined number of times, in other words, if the subscriber (or some other calling party) lets the direct inward dial (DID) number ring too many times, the central station of the present claimed invention assumes that it is a nonsubscriber calling this number, possibly as a wrong number. In such a condition, to prevent incorrect and bothersome long distance calls to subscribers, the central station will not attempt to call the subscriber who has subscribed to the specific DID number which was called. Thus claim 2 accurately describes this function of the preferred embodiment of the present invention.

As to claim 3, the Examiner questioned why the central location and the calling party station would be disconnected after completion of the audio message. Claim 3, like claim 2, describes an error condition in the use of the system. Either the subscriber or a caller who has the wrong number has called and incorrectly used the system. In the case where someone calls the assigned direct inward dial number and leaves the telephone ring too long or too many rings exceeding the predetermined number of rings before the hangup, the system will be in an error condition. This error condition indicates that either a caller has called the wrong number or that the subscriber is incorrectly using the system. In this alternative embodiment, after an excessive number of rings, the system will answer, however, it will play a prerecorded audio message which indicates to the caller that they have called a private subscriber system and then terminate the call by hanging up. In this fashion people calling this number in error will be informed that they indeed have reached the wrong number.

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Rejection Under 35 U.S.C. § 103

The Examiner has rejected claims 1-14 and 16-17 under 35 USC Section 103 as being unpatentable over Kahn et al. (US Patent No. 4,086,438). The Examiner has not explicitly cited a second reference to support this rejection. The Examiner has provided, however, support for the rejection by indicating that ANI and CNI technologies existed in the prior art. It is respectfully submitted that the Examiner has not shown the motivation to combine the Kahn et al reference with the references to ANI and CNI.

Independent apparatus claim 1 and independent method claim 10 have been more specifically amended to include the limitations of claims 5 and 13 respectively. That is, the independent claims now include the specific language that direct inward dial numbers are used to link a subscriber to the central location of the present invention. The use of direct inward dial (DID) numbers in combination with the other elements of the claimed invention is nowhere taught or described in the prior art. A direct inward dial number is sent on a trunk line from a telephone company central office to a PBX interface. The trunk line carries signalling information such as the assigned DID number which has been called by the calling party. The PBX receives the DID number and passes it to the central location of the claimed invention. This DID number is then compared against the DID numbers assigned to subscribers to find the subscriber's telephone number which is requesting service.

In the interview summaries described above, the Examiner took the position that ANI and CNI appeared to make the independent claims of record obvious in combination with the Kahn et al. patent. The Examiner further posits that DID information on PBX trunk lines is equivalent to ANI and CNI and therefore equally obvious. The applicant respectfully traverses both positions as being two steps removed from a showing of obviousness.

Although the applicant has amended the independent claims of the present patent application to specifically call out DID as the means for indicating the subscriber number, applicant in no way disclaims the broader concept of using ANI and CNI in the present invention and reserves that right to reintroduce the broader claims at a later date.

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Thus the narrowing of the claims in the present patent application is made without prejudice and without any admission that using ANI and CNI is obvious.

Applicant also respectfully points out the ANI and CNI information in the central office is not equivalent to DID trunk numbers. ANI or CNI indicates the telephone number of the originating station of the caller. This information is typically used in long distance toll accounting systems to indicate the telephone number of the calling party.

DID numbers on the other hand indicate which local number was called on a PBX trunk interface. Thus ANI and CNI indicate a completely different telephone number than PBX DID interface numbers. It is respectfully pointed out that the two functions of ANI/CNI and DID are not equivalent.

Applicant respectfully traverses the Examiner's position that the present invention is obvious in light of any references of record. Applicant also reserves the right to swear behind many of the references of record since the date of invention of the present invention predates many of the filing dates of the patents of record and the publication dates of publications of record. Applicant reserves the right to swear behind these references at a later time.

AMENDMENT AND RESPONSE

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Conclusion

Applicant respectfully requests that removal of all rejections of the pending claims and allowance of all claims be granted.

Respectfully submitted,

James Harry Alleman

By his attorney,

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By Daniel J. Kluth
Reg. No. 32,416

Date Mar. 14, 1994

By

Daniel J. Kluth
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BY FACSIMILE: The undersigned hereby certifies that this Amendment and the Transmittal Letter are being transmitted to the United States Patent and Trademark Office, by facsimile addressed to: Commissioner of Patents and Trademarks, Attn: Examiner A. Matar, Washington, D.C. 20231, on this 14th day of March, 1994.

By: Daniel J. Kluth
Daniel J. Kluth
Reg. No.: 32,146

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James H. Alleman

Examiner: A. Matar

Serial # : not available yet

Group Art Unit: 2601

APP II

Parent Serial # : 07/873,323

Filed : June 2, 1994

Docket: 162.2-US-01

Title : Interactive Telephone System for Optimizing Service Economy

PRELIMINARY AMENDMENT

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

In response to the Final Office Action mailed January 14, 1994 in the parent patent application to this application, to which the attached File Wrapper Continuation Application has been filed, and preliminary to examination, please amend the above-identified patent application as follows.

In the Drawings

Figure 3 has been changed according to the red-line drawing previously mailed on March 28, 1994.

In the Claims

Please delete claims 2-17.

Please add new claims 18-27 as follows:

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Filed: June 2, 1994

18. [New] A system for establishing a telephone communication link between a subscriber telephone station and a destination telephone station, comprising:
- control means including a caller response unit;
 - storage means connected to the control means and operable for storing a local direct inward dial telephone number associated with a subscriber and for storing a subscriber remote telephone number associated with the subscriber telephone station;
 - first telephone connection means connected to the control means and operable for connecting to a telephone exchange and for receiving an incoming direct inward dial telephone number from the telephone exchange as part of an incoming call attempt;
 - second telephone connection means connected to the control means and operable for dialing out through the telephone exchange;
 - the control means further operable for comparing the incoming direct inward dial telephone number to the local direct inward dial telephone number and, if the incoming direct inward dial telephone number matches the local direct inward dial telephone number associated with the subscriber, the control means is further operable for:
 - calling the subscriber remote telephone number through the first telephone connection means;
 - receiving from the subscriber a calling telephone number for the destination station;
 - calling the calling telephone number through the second telephone connection means; and for
 - bridging the first telephone connection means to the second telephone connection means so that the subscriber is connected to the destination.

19. [New] The system according to claim 18 wherein the control means is further operable for indicating an invalid call attempt if the incoming call attempt does not terminate within the predetermined period of time.

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20. [New] The system according to claim 19 wherein the control means is further operable for answering the incoming call attempt in response to the invalid call attempt and for presenting an audio message onto the first telephone connection means in response to the invalid call attempt.
21. [New] The system according to claim 18 wherein the control means is further operable for indicating an invalid call attempt if the incoming direct inward dial telephone number does not match the local direct inward dial telephone number associated with the subscriber.
22. [New] The system according to claim 21 wherein the control means is further operable for answering the incoming call attempt and for presenting an audio message onto the first telephone connection means in response to the invalid call attempt.
23. [New] A method establishing a telephone communication link between a subscriber telephone station and a destination telephone station, comprising the steps of:
- storing a local direct inward dial telephone number associated with a subscriber;
 - storing a subscriber remote telephone number associated with the subscriber telephone station;
 - receiving an incoming direct inward dial telephone number from a first telephone exchange connection as part of an incoming call attempt;
 - comparing the incoming direct inward dial telephone number to the local direct inward dial telephone number and if the incoming direct inward dial telephone number matches the local direct inward dial telephone number associated with the subscriber, performing the following steps:

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calling the subscriber remote telephone number;
receiving from the subscriber a calling telephone number for the
destination station;
calling the calling telephone number through a second telephone
exchange connection; and
bridging the first telephone exchange connection to the second
telephone exchange connection so that the subscriber is connected to the
destination.

24. [New] The method according to claim 23 further comprising the steps of
comparing the incoming direct inward dial telephone number to the local direct inward dial
telephone number and if the incoming direct inward dial telephone number does not match
the local direct inward dial telephone number associated with the subscriber, terminating the
incoming call attempt.

25. [New] The method according to claim 23 further comprising the steps of
comparing the incoming direct inward dial telephone number to the local direct inward dial
telephone number and if the incoming direct inward dial telephone number does not match
the local direct inward dial telephone number associated with the subscriber, answering the
incoming call attempt and playing a prerecorded message.

26. [New] The method according to claim 23 further comprising the steps of
timing the incoming call attempt and indicating an invalid call attempt if the incoming call
attempt does not terminate within a predetermined period of time.

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27. [New] The method according to claim 26 further comprising the steps of answering the incoming call attempt and playing a prerecorded message in response to the invalid call attempt.

Remarks

In response to the Final Office Action mailed January 14, 1994 in the parent case for the present patent application, and in response to the Advisory Action mailed March 17, 1994, the above-identified patent application has been amended. Reconsideration of the rejections in the parent case and allowance of the new claims presented is respectfully solicited.

Change of Power of Attorney

Applicant calls the Examiner's attention to the Acceptance of Power of Attorney for the present patent application mailed April 7, 1994. Applicant also calls the Examiner's attention to the Change of Address request filed with the present Preliminary Amendment.

New Claims Amended claims 18 - 27

New claims 18-27 are submitted to take the place of original claims 1-17. At this time, only claims 2-17 have been deleted and claim 1 will be deleted after admission of these new claims to ensure continuity of the case.

The claims have been specifically rewritten to remove the rejections under 35 U.S.C. Section 112 and 35 U.S.C. Section 103. Support for these claims are found throughout the specification.

In particular, new claim 18 replaces original claim 1. This claim is written in a more readable fashion and explicitly sets forth the fact that direct inward dial numbers are

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used to compare an incoming call from a subscriber to the subscriber list stored within the system.

Claim 19 describes a further limitation of the system in which a user does not terminate the call within a predetermined time. This corresponds to page 17 of the specification where it describes that an invalid call attempt is one in which a caller does not hang up within a predetermined period of time. This is usually the case when a wrong number is dialed into the present system, or a user is improperly using the system. Other invalid call attempts are described in claims 20-22.

Claim 23 is a new method claim corresponding to deleted claim 14. This method claim explicitly describes the steps of operation of the present invention including the use of direct inward dial numbers which is nowhere shown in the prior art.

Claims 24-27 also describe invalid call attempts.

Interview Summary

Applicant thanks Examiner Matar for the courtesy of the telephone interview on May 16, 1994. Applicant contacted Examiner Matar to discuss the status of the claims after reviewing the Advisory Action mailed March 17, 1994. The Examiner and Applicant's attorney discussed the rejection of original claims 1, 4 and 5 under 35 U.S.C. §103 and the rejection of original claims 2 and 3 under 35 U.S.C. §112. The Examiner reiterated his position that the amendment After Final would not be admitted in its present form since the scope of independent claim 1 has changed. No agreement on the claims was made.

Drawings Objection

The Examiner objected to Figure 3 because it did not show under what condition the process would proceed from 48 to 49. A proposed drawing change was previously mailed on March 28, 1994. Acceptance of this drawing change is respectfully

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requested. Upon notice that the drawing changes are approved, new formal drawings will be submitted to the Official Draftsman.

Rejections Under 35 U.S.C. § 112, Second Paragraph

In the Final Office Action of the parent application, original claims 2-3 were rejected under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The new claims have been carefully reviewed to ensure they comply with 35 U.S.C. § 112. Reconsideration of the rejection and allowance of new claims 18-27 is respectfully requested.

Rejection Under 35 U.S.C. § 103

In the Final Office Action of the parent application, the Examiner rejected original claims 1-14 and 16-17 under 35 USC §103 as being unpatentable over Kahn et al. (US Patent No. 4,086,438). The Examiner has not explicitly cited a second reference to support this rejection. Under MPEP 706.02(a), applicants respectfully request the Examiner cite a second reference in support of his position.

The present invention is nothing like the Kahn et al. patent. The Kahn et al. patent describes an automatic interconnection system for answering incoming calls and connecting the incoming call to an outgoing line for making an outgoing call. The calling party has to call into the system where the system answers. The calling party then provides a security code which is compared with stored codes. If a valid security code is entered by the calling party, the system will provide the calling party with a dial tone so the calling party can make an outgoing call.

In contrast to this, the present invention as described in new apparatus claims 18-22 and new method claims 23-27 describe a system which operates without the subscriber being charged for a long distance call. This is accomplished according to the claimed

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invention by having this system receive the direct inward dial number called by the subscriber and calling back the subscriber without the need to have the subscriber connect to the system. This is a superior system to the Kahn et al. patent since the subscriber will not incur any long distance charges for connection. If the assigned direct inward dial number of the subscriber matches that of the list, the system calls the subscriber's telephone station which is preassigned. Thus, the system is further superior to the Kahn et al. patent since it prevents fraud and use by non-subscribers by only calling a subscriber's telephone station. Thus, theft of a subscriber's access code or security code as described in the Kahn et al. patent is impossible with the present invention.

The new claims as submitted contain elements which are not found in the Kahn et al. reference. Thus, the rejection of the claims based on the Kahn et al. reference would not be proper. Applicant respectfully requests, therefore, that these new claims be examined, that the rejections of this case be removed, and the claims be allowed to issue.

Request for Interview Prior to First Office Action

Applicant respectfully requests a telephone interview with the Examiner prior to the first office action pursuant to MPEP Section 706.07(b) which states that "a request for an interview prior to first action on a continuing or substitute application shall ordinarily be granted." Applicant believes an interview prior to the first action would be beneficial in furthering the action on this case.

PRELIMINARY AMENDMENT

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Patent Application for:
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Parent Application Serial No: 07/873,323
Filed: June 2, 1994

Conclusion

Applicant respectfully requests that removal of all rejections of the pending claims and allowance of all claims be granted.

Respectfully submitted,

James Harry Alleman

By his attorney,

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Date June 2, 1994

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Date of Deposit: June 2, 1994
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Washington, D.C. 20231

DANIEL J. KLUTH
Printed Name
Daniel J. Kluth
Signature